



SOIL EROSION & SEDIMENT CONTROL

Standards/Permit Updates



STANDARDS UPDATES

Soil erosion and sediment control standard practices employed for construction site storm water runoff are continually evolving under direction of the EPA's National Pollutant Discharge Elimination System (NPDES)



STANDARDS UPDATES

NPDES relies on advancements from the regulated industries, states and local jurisdictions to identify and implement advances in techniques and practices that will assist in the “watershed approach” of reducing and eliminating pollutants discharged to surface water resources



STANDARDS UPDATES

As new or more efficient practices are tested and proven the State and local jurisdictions like Mecklenburg County and the city of Charlotte are obligated to implement those advancements in the form of standards updates to ensure that the latest technological and practical Best Management Practices (BMPs) are employed



STANDARDS UPDATES

This module will go through some of the most recent standards updates that have been added to the State's Manual (*Erosion and Sediment Control Planning and Design Manual*) as well as the Mecklenburg County Land Development Standards Manual (MCLDSM) and the Charlotte Land Development Standards Manual (CLDSM)



STANDARDS UPDATES:

Erosion and Sediment Control Planning and Design Manual

The NC Planning and Design Manual as of May of 2013 have added the following
NEW sections:

- 6.18 – Compost Blankets – approved for use for slope stabilization, erosion control and vegetation establishment. See conditions, considerations, design criteria and specifications in the manual



- 6.24 – Riparian Area Seeding –
Disturbed riparian areas between
streams and uplands where
permanent herbaceous vegetation
is needed for long-term
protection. See conditions,
considerations, selection criteria,
seedbed preparation and planting
criteria in the manual



- 6.66– **Compost Sock** – A three-dimensional tubular sediment control and storm water runoff device used for perimeter control and soluble pollutants. See conditions, considerations, design criteria, installation, maintenance and disposal recommendations in the manual



STANDARDS UPDATES:

Erosion and Sediment Control Planning and Design Manual

The NC Planning and Design Manual as of May of 2013 have REVISED the following standards:

- 6.61– Sediment Basin
 - New example installation pictures and detail
 - “Special Limitation” section was revised to indicate: All high hazard potential dams and structures taller than 25 feet, and that also have a maximum storage capacity of 50 acre-feet or more are subject to the NC Dam Safety Law of 1967



- 6.61 – Sediment Basin (cont'd)
 - “Basin dewatering” section was revised to indicate: skimmer should be sized to dewater the basin in 2-5 days. (Similar to storm water requirements)
 - “Baffles” section included the following note for clarification:
Basins less than 20 feet in length may employ 2 baffles (rather than 3)



- 6.62 – Sediment Fence
 - “Materials” section was revised to indicate: Ensure that posts for sediment fences are 1.25 lb/linear foot steel with a minimum length of 5 feet (similar to NCDOT requirements)



- 6.64 – Skimmer Sediment Basin
 - “Planning Considerations” section was revised to indicate: A dewatering time of 2-5 days is required (similar to storm water requirements)
 - “Design Criteria” section included the following note for clarification: Basins less than 20 feet in length may employ 2 baffles



- 6.65 – Porous Baffles
 - New example installation pictures and details
 - “Materials” section was revised to indicate: Use matting made of 100% coconut fiber (coir) twine woven into high strength matrix with the properties shown in Table 6.65a (Specifications for Porous Baffle Material)
 - Posts should be approximately 1-3/8” wide measured parallel to the fence, and have a minimum weight of 1.25 lb/linear foot
 - “Construction” section was revised to indicate: Extend 9 gauge minimum high tension wire strand to side of basin or install steel T-posts to anchor baffle to side of basin and secure to vertical end posts



- 8.07 – Sediment Basin Design
 - “Principal Spillway (barrel conduit and riser)” section was revised to indicate: The minimum barrel conduit size allowable is 15 inches for corrugated pipe and 12 inches for smooth-walled pipe. This section was revised to be consistent with section 6.61.3 of the Design Manual



STANDARDS UPDATES:

Charlotte Land Development Standards Manual (CLDS)

CLDS as of July of 2014 have revised the following sections:

- 30.02A – Skimmer Basin Skimmer
 - Skimmer arm length requirement specified
 - Adjusted pond bottom schematic to include 1' sediment storage zone below skimmer invert elevation
 - Additional notes added for clarification



- 30.02B – Skimmer
 - Skimmer length requirement added (for consistency with State Design Manual)



- 30.03A– Sediment Basin
 - Skimmer length requirement added
 - Pond schematic adjusted to show pond bottom to include 1' of sediment storage below skimmer invert elevation
 - Additional notes added for clarification



- 30.11A– Stabilized Construction Entrance
 - Revised note #1 to read “and” instead of “or”
- 30.11C– Construction Entrance
 - New detail added for single family lot construction



- 30.16– Slope Stability
 - Added “Alternative 2” for 3’ wide bench set on contour of slope



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Standards Updates

This section should not be considered completed until the aforementioned standards have been read, in their entirety, directly from their respective Manuals. Completion of this module will assure that the Certified Site Inspector has an expert level of understanding of the standards



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Websites to remember:

Charlotte LDS:

<http://charlottenc.gov/ld/CLDSM/Pages/3000Series.aspx>

Mecklenburg County LDS:

<http://charmeck.org/mecklenburg/county/LUESA/WaterandLandResources/LandDevelopment/Pages/LD%20Manual%203000%20Series.aspx>

NC DEMLR Publications:

<http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permit-guidance/demlr-publications>